

## Adult literacy in multilingual Timor-Leste: First results of a study

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### Introduction

Although the majority of people without any schooling are living in developing countries, the bulk of studies on literacy acquisition is carried out with children in Western countries (Wagner 2004). Not much is known yet about the ways in which learning and teaching processes might differ for adults and children. Most studies on beginning reading and writing point to the importance of letter knowledge and phonological awareness (Adams 1990; Byrne 1998; Kurvers and Van der Zouw 1990) and adult first time readers seem to pass through more or less the same phases as children when learning to read and write (Kurvers and Van der Zouw 1990; Kurvers 2007; Kurvers and Ketelaars 2011). Most of the studies on adult literacy dealt with adults learning to read in a second language in a migration context. Success in beginning reading in those contexts was found to be related to proficiency in the second language, to the use of the first language as an instructional aid and to contextualising literacy learning into the needs and daily practices of the adult learners (Condelli, Wrigley *et al.* 2003; Kurvers, Stockmann and Van de Craats 2010). Besides, beginning readers and spellers in a second language experienced more problems with phonemes that did not exist in their first language (Kurvers and Van der Zouw 1990; Kurvers and Ketelaars 2011). The well-known impact of educational background on adult language learning was also revealed in adult literacy studies: students that had been attending primary school were more successful in reading and writing. The concept of critical age, often discussed in second language learning, has also been subject of dispute on adult first time readers. Although no clear evidence can be found about a critical age, several studies found significant differences between younger and older students learning to read in a second language (Condelli *et al.* 2003; Kurvers, Stockmann and Van de Craats 2010; Boon 2011a; Boon 2011b).

This article describes a study carried out in adult literacy education in Timor-Leste between June 2009 and June 2011. The study is part of the project “Adult literacy acquisition and use in multilingual Timor-Leste”<sup>2</sup> that combines this study’s results with the results of in-depth case studies of adult literacy education in practice. Many adults in Timor-Leste are currently learning to read and write in literacy programmes delivered by the government, NGOs and other organizations. Research carried out in Timor-Leste provides valuable information about the larger context in which this learning is taking place. Hajek (2000) and Taylor-Leech (2009) described the languages and literacy situation in Timor-Leste. Population census outcomes (DNE 2006a-b) shed light on the country’s adult literacy rates of just below 55%. Cabral and Martin-Jones’s (2008) account of the ways in which literacy was embedded in the East Timorese struggle against the Indonesian invasion and subsequent occupation is relevant to understand ideas and approaches in literacy education today. Boughton and Durnan (2007) described the multiplicity of adult education programmes and providers in Timor-Leste; Taylor-Leech (2009) described literacy projects and lessons learned in recent years; Boughton (2010) listed achievements in adult and popular education since 2002; Boon (2011a, 2011b) investigated participant characteristics and the development of some aspects of literacy ability in current literacy programmes.

The purpose of this study was to investigate some of the background and contextual variables mentioned before, focusing mainly on the learners that did not attend adult literacy classes before. The main research questions in this contribution deal with their literacy abilities after three to four months of literacy course attendance, and more specifically whether there is an impact of previous education, age and knowledge of Tetun: Is there a difference in task scores after three to four months of literacy course

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attendance between (a) people with and without prior education? (b) younger and older participants? and (c) Tetun and non-Tetun speakers?

## Method

To answer the research questions, field visits were paid to 73 adult literacy groups in eight districts in three literacy programmes. The eight districts were: Aileu, Baucau, Covalima, Dili, Liquica, Manatuto, Oecusse and Viqueque. The three programmes, all in Tetun, were: *Los Hau Bele* (23 groups), *Alfanamor* (18 groups) and *YEP Literacy and Numeracy* (32 groups). Though these are different programmes in content as well as method, all three focus in the first period on the acquisition of the alphabetic principle, the reading and writing of words and phrases and the filling out of forms. In all three programmes, six to nine hours of literacy classes are provided per week. During the field visits, the researcher was always accompanied by district coordinators and often also by national ministry/NGO staff, who assisted and provided background information.

### Participants

789 learners were interviewed shortly and were asked to participate in two reading and two writing tasks<sup>3</sup>. 68% of them were women and 32% men; 21% were under 21 years old, 38% from 21-40, 33% from 41-60 and 8% were older than 60. 69% never went to school, and 85% never attended a literacy course before. 88% had either one of the fifteen national languages or a dialect as mother tongue and 12 % Tetun. 82% reported they could speak and understand Tetun; almost 9% could speak and understand Portuguese.

### Instruments

The short learner interview consisted of questions about their age, language background, education and literacy programmes attended before, and the amount of time they attended the current literacy course, characteristics that have been found to affect literacy acquisition in previous studies. The tasks were developed in order to mirror instructional and learning practices in all programmes, focusing on crucial elements in getting access to the written code: grapheme recognition, word reading, word writing and filling out a basic form. During the interviews and tasks, all in Tetun, local teachers or coordinators explained and translated things in local languages when needed.

For the grapheme recognition task, each learner was given a page with 30 graphemes, and was asked which of the graphemes he or she could recognize. The first 23 graphemes on the paper are used in Tetun as well as Portuguese, such as *m*, *o*, *ú*, *ei*. The remaining seven were graphemes only used in Portuguese (*ç*, *ão*) or Tetun (*oo*, *k*) or Indonesian (*y*).

For the word reading task, each learner was given a paper with a list of 80 Tetun words, and was asked whether he/she could read words on the list. The first ten words appeared in all three literacy programmes, like *uma* (house) and *manu* (chicken). The words 11-70 were frequently used Tetun words, ordered from short and simple, like *ba* (to/for), *no* (and) to gradually longer and multisyllabic words, like *sira* (they), *labarik* (children). The last ten were loanwords from Portuguese frequently used in Tetun, like *presidente* (president). The participants were asked to read words during three minutes, which was audio recorded.

For the two writing tasks, each learner received a paper on which Tetun words like *naran* (name) and *suku* (village) were printed, with a line to write on. At the bottom of the paper, participants could finish a sentence by adding words to: *Hau hakarak aprende lee no hakerek, tanba ...* (I want to learn to read and write, because ...). After 15-20 minutes, the participants were asked to turn around the page for the word writing task. On the back side, the numbers 1-10 were printed, each with a line after the number, to write on. Ten Tetun words were read to the participants one by one, and the participants were asked to write them down. The words were ordered from simple and short to longer and more complex, i.e. *paun* (bread), *hanoin* (think).

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<sup>3</sup> Informed consent was acquired in advance at all levels (including ministerial, directorate and coordination level), and during each class visit it was secured at an individual level in face to face interaction with the adult learners, with translations in their regional language or local dialect.

### *Analysis*

The data analysis focussed on the adult learners' task scores after attending three to four months of literacy education, and whether factors like prior education, age and Tetun proficiency affected the scores. The choice for looking at reading and writing ability after three to four months of literacy education attendance is related to the government's policy to provide (an initial) three months of literacy education within the national adult literacy campaign and three to four months within the Youth Employment Promotion programme.

## **Results**

### *Learning context*

Before presenting the results related to the research questions, first some information will be given about the context in which adult learners were learning to read and write. Literacy classes in three programmes were visited: *Los Hau Bele* (Yes I Can) is a three-month audiovisual adult literacy programme of Cuban origin adapted to Timor-Leste's reality. It is part of Timor-Leste's national literacy campaign and implemented by the Ministry of Education in collaboration with advisors from Cuba. The *Alfanamor* programme consists of two six-month adult literacy courses, one for beginners called *Hakat ba Oin* (Step Forward) one for advanced learners called *Iha Dalan* (On the Way), both using manuals<sup>4</sup> with relevant contents for adult learners in today's Timor-Leste. The *Alfanamor* programme is also provided by the Ministry of Education, with support by UNICEF. The *YEP Literacy and Numeracy* courses are part of the *Youth Employment Promotion* (YEP) programme as conducted by the Secretary of State for Professional Training and Employment and coordinated by the International Labour Organization (ILO) in collaboration with the Ministry of Education and with local NGOs. In the courses, shortened (compact) versions of the *Hakat ba Oin* and *Iha Dalan* manuals<sup>5</sup> are used. For a detailed description of these programmes see Boon (2011a.)

During the field visits, 100 teachers filled out questionnaires about their backgrounds; 54 of them were women and 46 men. Their ages varied from 19 to 66 years; 74% of the teachers were 40 or younger. The number of years of education they had attended varied from four to 13 years; 68% had attended 12 years of education. Only 25% had more than one year of experience as a teacher in adult literacy, 75% had one year or less experience. 80% had a national language or dialect as mother tongue, 8% had Tetun and 12% had Tetun Terik as mother tongue. When asked what language they preferred for literacy education, 67% mentioned Tetun only, 11% mentioned Tetun and Portuguese, 9% Tetun and their national language and 6% Tetun and Bahasa Indonesia. Many teachers worked in rather poor circumstances: only 22 taught in a real classroom, the rest outside at a veranda (61), at the community centre (6) or under a roof (8) or a tree (3). At 66 sites there was no electricity, at 40 sites there were no chairs, and at 82 sites there were no tables for the participants. 14 teachers had to work without black- or whiteboard and some did not have enough chalk or markers (12), pencils (10) and notebooks (12).

Class observations on the use of languages in literacy classes revealed that most teaching and instruction took place in Tetun, while additional explanations and repetition were often given in the local or national languages. Small talk generally took place in the local or national languages, while meta-talk (about language(s) and lesson content) often took place in Tetun and sometimes Portuguese. When referring to numbers, various languages were used: Indonesian, Portuguese, Tetun and, occasionally, national languages.

### *Aspects of learners' literacy ability*

The focus is on 369 learners who had attended three to four months of literacy education at the time of the survey and never attended another adult literacy course before. In Table 1, this group is divided in three sub groups: participants who never attended primary education before, who attended one or two years, and who attended more than two years of primary education. Table 1 presents the results:

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<sup>4</sup> In the years 2004-2008 the first author of this article was involved in the development of the *Hakat ba Oin* and *Iha Dalan* curriculum and manuals, and in teacher training and capacity building related to the new manuals, while working at Timor-Leste's Ministry of Education as an adult literacy advisor, paid by UNDP.

<sup>5</sup> The compact versions of the *Hakat ba Oin* and *Iha Dalan* manuals (called 'YEP Livru 1' and 'YEP Livru 2') were developed with involvement of the first author of this article.

**Table 1** – Beginning literacy abilities of participants after 3-4 months of literacy education divided by amount of school experience.

	No education (N=229)		1-2y education (N=73)		>2y education (N=67)		F	Eta $\eta^2$
	M	SD	M	SD	M	SD		
Grapheme recognition	14.84	9.58	24.95	6.96	27.28	3.84	80.28**	.31
Word reading	13.99	24.18	51.97	29.63	64.69	24.47	135.16**	.43
Form filling	4.03	3.25	7.56	2.91	8.27	2.50	70.29**	.28
Word writing	3.79	3.61	7.23	3.37	7.79	2.84	50.93**	.22

\*\* p<.000

The participants without any primary school experience could recognize on average 15 out of 30 graphemes, read on average 14 out of 80 words in three minutes, could fill out on average four items in the basic form and could write on average four out of ten words. When comparing these with the scores of the other two subgroups, the impact of education attended in the past can clearly be seen. The groups differ significantly on all tasks. Posthoc analysis revealed that in all tasks the participants who never went to school before differed significantly from the ones with school experience. Between the participants with one or two years of education and the ones with more than two years of education there only was a significant difference in word reading scores.

To be able to focus on initial literacy learning, the selection of participants was further reduced to the first group without any school experience. Table 2 shows that their scores on all four tasks show large variation:

**Table 2** – Proportion of participants who scored between 0 and 100% correct on each of the tasks.

Score	Grapheme recognition 30 graphemes (%, n=237)	Word reading 80 words (%, n=229)	Form filling 10 items (%, n=239)	Word writing 10 words (%, n=239)
0% correct	9	52	11	30
1-20% correct	16	23	35	17
21-40% correct	17	7	11	11
41-60% correct	16	4	11	11
61-80% correct	19	5	22	14
81-100% correct	23	9	10	17
	100	100	100	100

Almost a quarter (23%) recognized more than 80% of the graphemes correctly, and a quarter (9% + 16% = 25%) recognized zero to 20% of the graphemes correctly. Problems with grapheme recognition were often either form related (mixing up letters that look alike, i.e. *u-n-h*) or sound related (mixing up letters that sound alike, i.e. *p-b-f-v*). More than half of the participants could not read any word on the list correctly yet, while almost one in ten (9%) could read over 80% of the words correctly. One in three participants were able to fill out two items on the form correctly, very often their name and signature, while one in ten (11%) could not fill out any item correctly yet, and one in ten (10) could fill out more than 80% of the form correctly. 30% of the participants were still struggling writing words correctly independently on dictation. Very often these participants could write words by copying them, or by listening to the teacher spelling out the word letter by letter. 31% on the other hand, could write over 60% of the words correctly.

Besides education, age and knowledge of the language of literacy might play a decisive role in learning to read and write. Table 3 shows the scores on the four tasks by participants until 40 years and over 40, and by Tetun and non-Tetun speakers.

**Table 3** – Scores on the four tasks by 239 participants divided by age group and proficiency in Tetun.

	40 years or younger (n=127)	Older than 40 (n=112)		Tetun speaker (n=169)	Non-Tetun speaker (n=69)	
	Mean (Sd.)	Mean (Sd.)	T	Mean (Sd.)	Mean (Sd.)	T
Grapheme recognition	18.66 (8.09)	11.13 (9.55)	6.51**	16.33 (9.10)	12.20 (10.07)	-3.08**
Word reading	19.25 (27.34)	8.41 (18.87)	3.51**	15.18 (25.55)	11.23 (20.59)	-1.24
Form filling	5.23 (3.20)	2.88 (2.90)	5.94**	4.18 (3.25)	3.96 (3.34)	-0.47
Word writing	5.01 (3.57)	2.59 (3.25)	5.48**	4.09 (3.68)	3.28 (3.46)	-1.59

\*\* p<.01

Although the differences within each of the groups are large (as shown by the standard deviations), for all four tasks the younger participants on average had significantly higher scores than the older ones. Tetun proficiency seemed to play a less crucial role. For all tasks, Tetun speakers on average had higher scores than non-Tetun speakers, but only with the grapheme recognition task the difference between the two groups was significant.

### Conclusions and discussion

The field visits revealed that most participants learned in very heterogeneous groups, where young and older learners and people with and without prior education are mixed. For most learners (88%), learning to read and write in Tetun meant learning to read and write in a second language. The participants who had attended three to four months of literacy education showed large variations in scores for the reading and writing tasks, which is in line with other research findings (Kurvers, Stockmann and Van de Craats 2010). As for the first research question: positive relationships were found between task scores and learners' previous primary education, also something known from literature (Condelli, Wrigley et al. 2003). A closer look was paid to the group of 239 learners who never went to school and never attended a literacy course before. One in four still had trouble recognizing graphemes and 52% could not yet read (new) words independently after three to four months of literacy education. Three to four months of literacy education apparently is not enough for many new readers to become skilful readers, as the studies of Kurvers et al. (2010) and Condelli *et al.* (2003) also revealed. Letter knowledge and understanding of grapheme-phoneme correspondence are crucial pre-conditions for being able to read an alphabetic script (Adams 1990), but are not sufficient (Byrne 1998). Many learners had acquired the graphemes and knew how to pronounce them, but they had trouble blending those to words, which is another cognitively complex skill. The scores on the writing tasks showed that, although many learners could write their name and signature, learning to write (new) words independently for many of these participants would take longer than three to four months of literacy education. On all tasks, age seemed to matter: older learners had more difficulties in getting access to the written code than younger ones. Although positive relationships were expected with Tetun proficiency, this only turned out to be significant for grapheme recognition. This might have to do with the large number of participants who were still struggling so hard to blend phonemes to syllables and words that they did not yet reach the stage of connecting meaning to print.

More research is needed to gain a deeper insight into (other) factors that distinguish fast learners from slower learners, in problems these new readers and writers face and how these can be overcome. The case studies will help to shed light on the teaching and learning processes in the literacy classes, the literacy practices that learners engage in in their daily lives and the impact of their growing literacy ability.

The various actors in the adult literacy education sector in Timor-Leste will decide what implications for policy and practice can be drawn from this kind of research. Their voices will be leading when all results of this project have become available and recommendations are going to be translated into products and tools for the adult literacy education sector. The valorisation activities scheduled in the project will take place in collaboration with the main stakeholders involved in adult literacy education, i.e. Timor-Leste's Ministry of Education and local NGOs.

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